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PUBLIC HEALTH ACT, 1872.

Report for the Year 1894.

BEING THE
TWENTIETH
ANNUAL REPORT
ON THE
SANITARY CONDITION
OF THE
TROWBRIDGE URBAN SANITARY DISTRICT.

PRESENTED TO THE
Trowbridge Urban District Council
BY
R. T. RICHARDSON, F.Br.Inst.P.H.

MEDICAL OFFICER OF HEALTH OF THE TROWBRIDGE
URBAN SANITARY AUTHORITY.



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TABLE OF
DEATHS, arranged as to their CAUSES and AGES,
Occurring in the
Urban District Council District of Trowbridge, for the Year 1894.

NAME OF DISEASE.	Sex Totals.		Mortality from all causes, at subjoined Ages.																								TOTAL.		
	Males.	Females.	Under 1 Year.		1 & under 2		2 & under 5		5 & under 10		10 & under 20		20 & under 30		30 & under 40		40 & under 50		50 & under 60		60 & under 70		70 & under 80		80 & under 90			90 & under 100	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F
GROUP 1.—ZYMOTIC DISEASES :—																													
Measles	2	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Diphtheria	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Diarrhoea	2	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Influenza .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	5	2																											
GROUP 2.—SEPTIC DISEASES :—																													
Puerperal Fever .. .. .	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2
Total .. .. .	..	2																											
GROUP 3.—WASTING DISEASES :—																													
Tabes Mesenterica	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Phthisis	5	1	..	..	..	..	..	..	..	..	1	1	..	2	..	1	..	..	..	..	..	1	..	..	..	..	..	..	6
Atrophy	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Mesenteric Disease .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Marasmus .. .. .	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	8	4																											
GROUP 4.—DISEASES OF UNCERTAIN SEAT :—																													
Cancer	3	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	3	1	2	..	1	..	..	..	10
Total	3	7																											
GROUP 5.—NERVOUS SYSTEM :—																													
Spinal Disease .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Softening of Brain	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2
Myelitis—Paraplegia .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Cerebral Apoplexy	3	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	2	2	2	2	..	..	..	..	..	11
Meningitis .. .. .	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Congestion of Brain .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Tubercular Meningitis .. .. .	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Meningo Encephalitis .. .. .	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Paralysis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Hemiplegia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Convulsions	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	7	15																											
GROUP 6.—CIRCULATORY SYSTEM :—																													
Heart Disease	6	7	..	..	..	..	..	..	1	..	1	1	1	..	..	..	..	..	1	1	1	1	3	..	..	1	1	..	13
Total	6	7																											
GROUP 7.—ORGANS OF LOCOMOTION :—																													
Acute Rheumatism .. .. .	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total .. .. .	..	1																											
GROUP 8.—RESPIRATORY ORGANS :—																													
Broncho-Pneumonia	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Capillary Bronchitis	1	2	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3
Bronchitis	2	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	..	2	..	..	..	8
Chronic Asthma, Bronchitis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2
Pleuro-Pneumonia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Pneumonia	2	3	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	5
Congestion of Lungs	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	10	11																											
GROUP 9.—DIGESTIVE ORGANS :—																													
Disease of Liver	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	2
Hoematemesis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Icterus (3 days) .. .. .	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cirrhosis .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Perforation of Stomach from Ulcer .. .. .	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	2
Congestion of Liver .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Acute Peritonitis	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Jaundice	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Progressive Pernicious Anæmia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Total	5	6																											
GROUP 10.—GENITO URINARY ORGANS :—																													
Enlargement of Prostate, Cystitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Bright's Disease	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Suppurative Cystitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Diabetics .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	3	1																											
GROUP 11.—DEVELOPMENTAL DISEASES :—																													
Premature Birth (1 min. & 30 min.)	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Weakness from birth (20 minutes) (one of twins)	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Inanition from birth (9 days) .. .. .	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	3	1																											

To the Chairman and Members
OF THE
URBAN DISTRICT COUNCIL OF TROWBRIDGE.

GENTLEMEN,

In submitting to you my second Annual Report on the public health and sanitary condition of the district, I beg to bring before your notice the following, viz :—

The approximate population of the district to middle of 1894 is 11,779, estimated by the method adopted by the Registrar-General (Farr's), that at the last census, 1891, being 11,717.

Trowbridge is placed at the junction line of the Cretaceous with the Oolitic formations. It lies in a valley drained by the stream called the Biss. The sub-soil is Oxford clay, interspersed with rock in some parts of the district. The surface is undulating, in no part really flat. The Biss runs through the town from south to north. The drainage generally speaking is good, and it is only after exceptionally heavy rains that any part of the district is flooded, then only those portions at the Town and Cradle Bridges respectively. During November an exceptionally large amount of rain fell, terminating on the 12th and 14th respectively in floods, the highest that have been known in Trowbridge, flooding several houses near the Cradle Bridge, including Longfield House, as well as several houses near the Town Bridge.

The water supply is good ; the source is from the chalk hills at Upton Scudamore, near Warminster. It is clear, bright, and of pleasant taste. The amount used per head per diem is about 17 gallons. The supply is constant, consequently no storage cisterns are required. Analysis :—

Dated November 6th, 1893.

Chlorine as Chlorides	...	...	...	·7 grains per gallon.
Free Ammonia	...	...	...	none.
Albumenoid Ammonia	...	...	...	·0014 „ „
Nitric Acid as Nitrates	...	...	...	none.
Total Solids	...	...	...	23·84 „ „
Hardness before boiling	...	...	...	14·0 degrees.
Hardness after boiling	...	...	...	3·5 „

Lead and other poisonous matters absent.

This is an excellent sample of drinking water.

(Signed) J. W. GATEHOUSE, F.I.C.,

Public Analyst to the City of Bath.

The system of sewerage adopted is the water carriage system, and the sewage for the most part after passing through the main sewer is discharged into the river Biss.

It is difficult to estimate the number of W.C.'s in the district, the number supplied with water is about 700, leaving a large number without any flush whatever. There are several privies in the district, but no ashpits. The refuse is collected by the Sanitary Authority's scavenger twice a week and deposited in various parts of the district. The practice of depositing the refuse in the vicinity of populous parts of the town is injurious to public health and should be discontinued forthwith.

The condition of the homes of the Working Classes is fairly good ; many new houses of a better class have been built, consequently many of the older ones have become uninhabited. During my last quarterly inspection of the district, in company with the Inspector of Nuisances, I found the latter to be particularly the case in most of the courts, the houses here being unoccupied.

The chief industries are—The manufacture of cloth, brewing, iron foundry and engineering, mattress making, etc., etc. I

have found no particular injurious effect upon the health of the work-people from working at these industries.

The Biss is the only stream passing through the district. It is sluggish and winding in its course. It is rendered unsightly by the chemicals used in the dyeing of the cloth being discharged into it. This takes place in its course through the town.

It is polluted by nearly the whole of the sewage being discharged into it. This takes place outside the town, about one hundred yards away from the inhabitants, in a north-westerly direction, many houses having been built in the Bradford Road during the year, and building is still in progress in this direction.

A Sub-Committee of the late Board visited various Works of Sewage Disposal in June and reported the result:—"The Committee have been impressed with the great difficulty and complexity of the matter to be dealt with, even where suitable land is obtainable, whilst in the case of Trowbridge, where the nature of the soil, the natural gradient of the land, and the smallness of the stream are to be taken into consideration, the problem is surrounded with unusual difficulties."

There is practically only one Burial Ground, viz :—The Cemetery, which is away from the thickly-populated part of the town, and is not over-crowded by any means. The Trinity Church-yard is full, and it is only in exceptional cases that a burial takes place there.

The slaughter-houses, 12 in number, have been inspected by me, and are kept in a satisfactory condition. There is, however, room for improvement in the keeping of the middens in connection with the above.

The bake-houses, 26 in number, have also been inspected by me, and they, too, are kept in a cleanly and satisfactory manner. All are above ground, no drain or any nuisance whatever being connected with them.

The common lodging-houses, 3 in number, have also been inspected by me, and have given satisfaction.

The dairies, milkshops, and cowsheds have been inspected and have given satisfaction.

There have been no new bye-laws adopted during the year relating to sanitary work.

The district has been inspected by me once a Quarter, accompanied by the Sanitary Inspector, with the result that notices have been served to remedy any nuisance existing. No house has been found really unfit for habitation. The courts in the district have also been frequently inspected by me. The Sanitary improvements effected during the year have been numerous, such as ventilating shafts to houses, new pans to closets where required, water laid on to same, etc., for which I must refer your Board to the Surveyor's annual report.

The work for draining that part of the district known as Upper Studley has been completed, doing away with the foul ditches in that locality.

I have inspected the sanitary arrangements of the several Schools, and where found necessary notices have been served to remedy nuisances existing and to put the premises in a sanitary condition. It is a pity that where arrangements are fixed for flushing automatically, the system is not carried out.

The action taken to prevent the spread of Infectious Diseases has been the following, viz :—As soon as any infectious disease is notified to me, I visit the house and see that the case is isolated. I leave printed instructions, issued by your Board, for the management of these cases. With regard to Measles and Whooping Cough, these not being notifiable diseases, I have done nothing to prevent their spreading. In fact, it is impossible for me to tell how many cases there are or have been in the district. I have not recommended Closure of the Schools, as I do not believe it is much good in urban districts.

The Infectious Diseases Hospital consists of two adjoining cottages converted, and occupied at present by the care-taker and his wife. The rooms consist, on the ground floor (running from south to north), of scullery, kitchen, sitting-room, and bedroom. The upper floor is the "Infectious Diseases Hospital proper," and contains, in the same order, the following rooms with their dimensions, viz :—First room—height, 8 feet; breadth, 16 feet; length, 20 feet; floor space, 320 square feet; capacity, 2,560 cubic feet. This room communicates by staircase with room below.

Second or middle room—height, 8 feet; breadth, 14 feet; length, 12 feet; floor space, 160 square feet; capacity, 1,140 cubic feet. This room also communicates by staircase with a room below. It is also irregular in shape. Third room—height, 8 feet; breadth, 15 feet; length, 8 feet; floor space, 120 square feet; capacity, 960 cubic feet. This room has no fireplace. Drainage is now provided to carry off the surface water, and an earth closet for the use of the sick. This building is capable of isolating about three cases, therefore it would be quite inadequate to cope with any serious epidemic of Infectious Disease.

The several infectious Diseases have been distributed in the district as follows :—

Scarlatina or Scarlet Fever.

Hilperton Marsh
38, Stallard Street (3 cases)

Rose Villa, Gloucester Road
14, West Street

Total 6. 1893—67 cases.

Erysipelas.

49, Upper Studley.
1, Alexander Villas, Wingfield Road.
Ivy Cottage, Conigre.
Elmsleigh, Westbourne Road.
Northfield House, Hilperton.
22, Thomas Street.
38, Park Street.
2, Sunny Croft, Hilperton Road.
15, Timbrell Street.
4, New Road Court.
6, Home Mill Buildings.
5, Avenue Terrace, Gloucester Road.
Ashton Street.
5, Carlton Terrace, Bradley Road.
12, Adcroft Street.
6, Church Walk.
Beaconsfield Terrace, Waterworks Road.

Total 17. 1893—19 cases.

Diphtheria

8, Polebarn Road.
St. Thomas' Cottage.
5, Avenue Terrace, Gloucester Road
(Died).
5, Avenue Terrace, Gloucester Road.

Total 4. 1893—4 cases.

Typhoid Fever.

39, Ashton Street.
4, Polebarn Buildings, Polebarn Road.

Total 2. 1893—4 cases.

Puerperal Fever.

4, Yerbury Street (Died).
7, Park Street (Died).

Total 2. 1893—1 case.

The six cases of Scarlet Fever were very mild in character. The first case (Hilperton Marsh, 19th February), occurred in connection with opening the drain at the British School, when putting in the new closets. The second case (38, Stallard Street, 20th April), was infected at Holt and imported to Trowbridge, the two other children, third and fourth cases, being infected from this one. The fifth case (Gloucester Road, 21st May), was supposed to be infected at the Flower Show ; and the sixth (West Street, 9th October) uncertain.

There were 17 cases of Erysipelas, none fatal. Most of the cases were very mild in character.

Several of the cases of Erysipelas were connected with many sanitary defects as follows, viz. :—

Closet drained into cesspool just outside the house, agricultural pipes used, these smashed and stopped up ; sink trap in kitchen defective, also draining into cesspool, smells very bad at times.

No water to closets, pans in an unsanitary condition.

Defective sink bell-trap in back kitchen, defective drain within two yards of front door.

Bad smells arising from decomposing town refuse at brick-yard in Waterworks Road.

There were 4 cases of Diphtheria, with 1 death. The unsanitary conditions found likely to cause the outbreak of this disease were the following :—

1st Case.—Sink in back kitchen in direct communication with sewer, allowing sewer gas to enter the house.

2nd Case.—Drain untrapped outside back door, smells from drains ; closet without water, and smells from boys' urinal, &c.

3rd & 4th Cases.—Hole at seat of vent-pipe communicating underneath trap with drain, allowing sewer gas in a concentrated form to escape, for an unknown period, which no doubt percolated into kitchen. The third case proved fatal on the third day of attack.

There were 2 cases of Typhoid or Enteric Fever ; neither of these were fatal. One case occurred in Ashton Street and the other in Polebarn Road, both traced to drinking impure water from wells.

The following is the Analyses, copied from the Public Analyst's report :—Ashton Street.

Chlorine as Chlorides	...	...	7	grains per gallon
Free Ammonia	...	...	·0042	,, ,, ,,
Albumenoid Ammonia	...	...	·0084	,, ,, ,,
Nitric Acid as Nitrates	...	...	7·7	,, ,, ,,
Total Solids	...	...	124·	,, ,, ,,

This water is most highly contaminated with decomposing nitrogenous organic matters and with the oxidized products of such decomposition, proceeding from infiltration of sewage, and is quite unfit for any domestic use whatever.

(Signed) J. W. GATEHOUSE, F.I.C.

The well was closed by order of the Board, and the Company's water has been laid on to the premises.

ANALYST'S REPORT.

Polebarn Road Pump.

Chlorine as Chlorides	...	...	5·96	grains per gallon.
Free Ammonia	...	...	none.	
Albumenoid Ammonia	...	...	·0168	,, ,,
Nitric Acid as Nitrates	...	...	5·25	,, ,,
Total Solids	...	...	92·32	,, ,,

This water is highly contaminated with the oxidized products of sewage, and is quite unfit for use as a domestic water supply.

(Signed) J. W. GATEHOUSE, F.I.C.

The pump handle was removed by order of the Board, and the Company's water has been laid on to the premises.

The diseases such as Cancer and Phthisis are distributed as follows :—

Cancer.	Phthisis.
5, Court Street 3, Gloucester Road 6, Innos Upper Studley 80, Lower Studley 19, Yerbury Street 27, Timbrell Street 12, Conigre 5, Avenue Terrace 26, Furlong	31, Duke Street 21, Silver Street 5, Burbidge's Yard 14, Middle Rank Eastbourne Road 4, Harding's Yard
Total 10.	Total 6.
Same number as last year.	A decrease of 8 compared with last year.

The Sanitary requirements for the district are pans to closets of a more modern design, such as the short Hopper or Flush-down closet, in place of the old-fashioned long Hopper closet. All closets should have a sufficient flush of water to properly cleanse the pan. Also the great want of a Mortuary.

The Sanitary staff consists of the Inspector of Nuisances only, who promptly carries out all orders and directions given by me.

I append a table showing the Birth-rate and Death-rate for the last 20 years.

Birth-rate. Death-rate.			Birth-rate. Death-rate.		
1875	34.2	20.4	1885	29	15.6
1876	34.3	19.6	1886	26	16
1877	32.2	22.5	1887	26	15.2
1878	34	22.6	1888	25.7	14.4
1879	30.9	16.9	1889	26.5	14.6
1880	29	20	1890	22.5	14.7
1881	32.8	14.3	1891	23.8	14.6
1882	32	18	1892	21.1	17.9
1883	33	16.6	1893	21.1	15.3
1884	29	20	1894	22.3	10.8

The death-rate of 1894 is the lowest recorded for the last 20 years, and with the diminution in the number of deaths in the

Zymotic, Septic and Wasting Diseases' groups, I hope to see the death-rate even lower.

NAME OF LOCALITY.	New Cases of Sickness of Persons belonging to the District, distinguishing those in Children under Five Years of Age.							
		Scarlatina	Diphtheria.	Enteric or Typhoid Fever.	Puerperal Fever.	Erysipelas.	Measles.	Whooping Cough.
The Urban District Council of Trow-bridge Sanitary District.	Under 5		1				? 2 *	?
	5 Upwards	6	2 † 3	2	2 *	17		
								23 30

† One Died. * 2 Died.

VITAL STATISTICS.

The number of births registered during the year were 263, viz:—130 males and 133 females, being a birth-rate of 22·3 per 1,000.

The number of deaths registered during the same period were 128, viz:—59 males and 69 females, being a death-rate of 10·8 per 1,000.

The deaths amongst children under one year were 23, a death-rate of 1·9 per 1,000, being 18 per cent. of the whole number, and 8·7 per cent. of the births.

The deaths in group I., viz:—Zymotic Disease (including Influenza amongst this group) were 7 (a decrease of 8 compared with last year), being a death-rate of 0·6 per 1,000, or 5·5 per cent. of the deaths.

The deaths in group III., Wasting Diseases, were 12 (a decrease of 10 compared with last year), being a death-rate of 1·01 per 1,000, or 9·3 per cent. of the deaths.

There were 15 births more and 52 deaths less during 1894 than in 1893, which is very satisfactory, neither has there been as much sickness. This may be accounted for by the absence of any epidemic, the shorter hours of the workpeople, cheaper and more abundant supply of meat, &c., &c., and the better-class houses of the artisan class.

The ages at death varied from 1 minute to 99 years. There were 63 deaths over 60 years of age; a death-rate of 5.2 per 1,000 (49.2 per cent of the whole number), including 17 between 60—70; 35 between 70—80; 8 between 80—90; 1 at 90, 1 at 95, and 1 at 99 years of age. Below is a table summarising the chief points of the year's vital statistics:—

Birth-rate	...	...	...	22.3	per 1,000
Death-rate	...	...	...	10.8	„ „
Zymotic death-rate	...	...	...	0.6	„ „
Death-rate among children under one				1.9	„ „
Proportion of deaths under one to					
1,000 births	...	...	...	87.4	„ „
Death-rate at 60 and upwards	...	...	...	5.2	„ „

There were 11 inquests held during the year (a decrease of 6 compared with last year).

Attached to my Report is a table of deaths giving the different causes and ages at death, a table showing the annual birth-rate and death-rate for the last 20 years, and a table of new cases of infectious sickness.

I remain, Gentlemen,

Yours obediently,

R. T. RICHARDSON, M.O.H.

To the Chairman and Members

OF THE

Trowbridge District Council.

GENTLEMEN,

I beg to present my Twelfth Annual Report as Surveyor and Sanitary Inspector of the Urban District of Trowbridge.

The following table sets forth the particulars as to the work done and nuisances abated during the year 1894 :—

Complaints received	...	...	...	...	12
Cottages inspected	...	...	...	...	12
Lodging Houses inspected	...	...	...	...	3
Slaughterhouses inspected	...	...	...	...	12
Dairies and Milk Shops inspected	...	...	...	...	3
Cowsheds inspected	...	...	...	...	8
Houses disinfected	...	...	...	...	2
Houses erected or rebuilt for which certificates were applied for	...	...	...	...	18
Certificates granted	...	...	...	...	18
Improved supplies of water	...	...	...	...	7
Wells closed	...	...	...	...	4
Houses connected with sewers	...	...	...	...	51
Premises newly connected with water mains	...	...	...	...	52
Privies, W.C.s, Drains and Slop Sinks repaired and improved	...	...	...	...	88
Nuisances from Animals or Animals improperly kept removed	...	...	...	...	4

Samples of Water taken for analysis	...	...	5
Nuisances reported or detected	...	...	119
Nuisances abated	...	...	119
Notices served	...	...	119
Overcrowding of dwelling-house	...	...	2
Dangerous Buildings or Structures	...	...	10

I have made periodical inspections of the various Courts, Slaughterhouses, Common Lodging Houses, etc., situated within the District and have served the necessary notices requiring the abatement of Nuisances where they have been found to exist, and have seen that such Nuisances have been abated.

DRAINAGE.—The Works of Drainage at Upper Studley have been completed, and with three exceptions the slop drainage of the houses in that part of the District have been connected. I am taking steps to have the remaining connections made.

The late Board have had under consideration the question of the Sewage Disposal of the Town, and a Committee have visited various Sewage Disposal Works in the neighbourhood of London. The whole question is surrounded with difficulties owing to the narrowness of the valley where the outfall is situate and the consequent absence of available land for the Works.

MARKET.—A two-inch main has been laid through the Market Paddock for the purpose of thoroughly cleansing the pens.

IMPROVEMENTS.—The following improvements have been carried out on the Main Roads, viz., the Widening of Newtown and the construction of a new footpath on the east side from Wesley Road Chapel to the top of Mortimer Street. The widening of Frome Road by Galley Farm, including the setting back of the footpath, and the widening of Bradford Road now in progress. A new footpath is also in course of construction on the west side of Timbrell Street, and also at Hilperton Marsh.

FLOODS.—Heavy floods occurred on Nov. 12th and 14th, and several houses and Factories in the lower parts of the Town were flooded; very little damage was done to the roads, though private property suffered severely.

BYTHESEA ESTATE.—A New Street through the Bythesea Estate, connecting Mortimer Street with Stallard Street, has been commenced; this, when opened, will afford direct communication with The Courts and Railway Station.

The Building Trade has been very quiet, and the number of plans passed for new houses are considerably less than that for the previous year, the number being :—

Dwelling and Business Houses	8
Alterations and Additions	7
Sheds and small erections	21
	—
Total.....	36

This shows a decrease of 31 as regards new Dwellinghouses and Business Premises, a decrease of 5 on Alterations and Additions, and an increase of 8 on Sheds and small erections.

Eighteen houses have been passed as erected in accordance with the plans approved of, a decrease of 34 on the previous year.

I have the honour to be, Gentlemen,

Your obedient servant,

W. H. STANLEY, A.M.I.C.E.

Trowbridge, January, 1895.

